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Thalassorama

Initial Effects of the Alaska Halibut IFQ Program: Survey Comments of Alaska Fishermen

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Introduction

In 1995 an Individual Fishing Quota (IFQ) management plan was implemented for the Alaska halibut fishery. With annual catches in the 1990s ranging from 34 to 53 million pounds, valued between $60 million and $99 million, the Alaska halibut fishery is the largest fishery for which the United States has adopted IFQ management.[1]

Halibut IFQs are area and vessel class specific.[2] Annual IFQ allocations are determined by multiplying total quotas for an area and vessel class by an individual's share of the total "quota share" for that area and vessel class. Quota share was originally allocated to individuals based on landings of vessels owned or leased by the individual during the years 1984–90. Although thousands of individuals received at least some quota share in the initial allocation, much of the total allocation was concentrated among a few hundred quota share holders.[3]

Quota share is transferable, although there are a variety of restrictions on transfers designed to limit consolidation in order "…to maintain, as much as possible, the current character of the fleet, to allow for new entrants and crew members, and to protect Alaskan coastal economies dependent on fishing" (National Marine Fisheries Service).[4] With certain exceptions, IFQ owners must be on board vessels fishing for halibut.

The IFQ program has dramatically changed the Alaska halibut fishery. For most of the decade prior to 1995, thousands of boats caught the entire Alaska halibut

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[1] Halibut (*Hippoglossus stenolepis*) is under the jurisdiction of the International Pacific Halibut Commission (IPHC), created in 1923 by a joint treaty between the U.S. and Canada. The commission establishes gear restrictions and area-specific fishing seasons and annual total allowable catches (TACs). The United States government, through the North Pacific Fishery Management Council, establishes additional regulations to meet the TACs and to allocate harvests in U.S. waters. See Knapp (1996) for a description of the Alaska Halibut IFQ program. A similar program was also adopted for the Alaska sablefish (black cod) fishery.

[2] There are eight halibut management areas and four vessel classes (freezer vessels of any length, catcher vessels 100 feet or longer, catcher vessels 35 to 65 feet in length, and catcher vessels under 35 feet).

[3] In November 1995, 3,048 persons (approximately 57% of quota share holders) owned less than 11% of the total quota share holdings (expressed in terms of 1995 IFQ lbs.); while 451 persons (or about 10% of quota share holders) owned 62% of total quota share holdings (Knapp 1996). These estimates were calculated after about 14% of halibut quota share (as measured by 1995 IFQ lbs.) had already been transferred, reducing the number of quota share holders from about 5,500 to 4,420 individuals.

[4] Restrictions limit the consolidation of small "blocked" holdings (those with less than approximately 20,000 lbs. of annual IFQ). Only original quota share recipients or crew members with more than 150 days experience in a U.S. fishery may purchase quota share.

quota in two or three 24-hour openings. With IFQ management, the halibut season is now open from March until November. Average crew sizes have declined. With a longer season, the share of Alaska halibut sold fresh has more than doubled, and ex-vessel and wholesale prices have increased. Coast Guard Search and Rescue cases and fatalities associated with the halibut fishery have declined sharply.[5]

The IFQ program has been the subject of intense debate by fishermen, both prior to and following adoption and implementation of the program. An earlier Thalassorama contribution reported on halibut captains' attitudes towards IFQs prior to the implementation of the program, based on responses to 391 telephone interviews conducted in 1994 (Knapp 1996). That study concluded that:

> Less than half of Alaska halibut captains preferred the IFQ system to the current system, and less than one-third named the IFQ system as their first choice for management of the fishery. Support for IFQs was clearly related to whether or not captains expected their financial situation to improve with IFQs—and the majority did not.

During the spring of 1996, the University of Alaska Institute of Social and Economic Research (ISER) conducted a mail survey of halibut quota share holders in order to gather information about the halibut fishery during the first year of the IFQ program. This survey also provided an opportunity to gather open-ended comments from quota share holders about positive and negative effects of the program. This paper reports on these comments. In addition to describing fishermen's perceptions of the most important effects of IFQ management, the comments also shed light on fishermen's attitudes towards the IFQ program after the first year.

Survey Administration and Design

The survey was conducted as part of a series of studies undertaken by federal and state agencies in 1995 and 1996 to gather information about initial effects of IFQ management of the Alaska halibut and sablefish fisheries (Smith and Parker). Four page survey questionnaires were mailed to a randomly selected stratified sample of 300 quota share (QS) holders. The purpose of the stratification was to be able to accurately characterize QS holders in large vessel classes or with large holdings (who constitute a small fraction of total quota share holders but a large share of total IFQ pounds). Survey responses were weighted to reflect the actual number of quota share holders represented by each respondent. The surveys were mailed in April 1996, with follow up mailings through June. As shown in table 1, completed surveys were received from 129 quota share holders for a response rate of 43%.[6]

Comparisons of survey estimates with information obtained from other sources suggest that the survey respondents were reasonably representative of halibut quota share holders. For example, estimated total 1995 halibut landings calculated from

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[5] A number of studies have examined initial effects of IFQ management on the halibut fishery. These include Commercial Fisheries Entry Commission (1996a,b); Gilroy and Sullivan (1996); Knapp and Hull (1996a,b,c); Knapp (1997a,b); and Smith and Parker (1996). Copies of most of these studies are available from the North Pacific Fishery Management Council, 605 West 4th Avenue, Suite 306, Anchorage, AK 99501-2252.

[6] A detailed description of the survey administration and results is available in a 133 page report on the survey (Knapp and Hull 1996a) available from the North Pacific Fishery Management Council at the address given in footnote 5. Surveys were also conducted of sablefish quota share holders (Knapp and Hull 1996c) and halibut and sablefish registered buyers (Knapp and Hull 1996b).

Table 1
Survey Strata, Sampling Fractions, and Response Rates

	Survey Strata						
	1	2	3	4	5	6	Total
Criteria used to assign QS holders to stratum:							
Vessel class of QS Total lbs. owned by QS holder	A any amt.	B >20,000	B <20,000	C >5,000	C <5,000	D any amt.	
Total IFQ pounds owned by QS holders in stratum (000 lbs)	829	11,040	1,078	16,995	1,987	3,198	35,127
Number of QS holders in stratum	40	155	150	1,016	1,059	1,983	4,403
Number of surveys mailed	40	52	52	52	52	52	300
Sampling fraction	100%	34%	35%	5%	5%	3%	7%
Number of completed surveys	12	26	16	25	27	23	129
Response rate	30%	50%	31%	48%	52%	44%	43%

weighted survey responses were 95% of total landings reported by the NMFS Restricted Access Management (RAM) Division.[7]

Survey Questions

The survey included twenty-six questions about quota share holders' participation in the 1995 halibut fishery. These questions gathered information such as IFQ volume harvested and not harvested, number of trips taken, number of IFQ holders on board, number of crew on board, how crew and IFQ holders were paid, and factors affecting when trips were taken and where halibut were landed.

Three open-ended questions at the end of the survey invited respondents to comment on effects of the IFQ program, and to provide recommendations or suggestions about the program:

> #27. What have been the most positive effects of the IFQ program on your fishing operation?
>
> #28. What have been the most negative effects of the IFQ program on your fishing operation?
>
> #29. Please use this space for any recommendations or suggestions you may have about the halibut and sablefish IFQ program. We will provide these comments and suggestions to the State of Alaska, the National Marine Fisheries Service, and the North Pacific Fishery Management Council.

Of the 129 respondents who returned completed surveys, 121 provided at least one comment in response to these open-ended questions.

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[7] The survey estimate of the share of IFQ that went unharvested was 9%, compared with 10% reported by the RAM Division. The survey estimate of the share of halibut landed outside Alaska was 12%, compared with 9% reported by the Alaska Commercial Fisheries Entry Commission.

Table 2
Number of Comments Expressed by Survey Respondents

Number of Separate Comments Made in Responding to Questions 27, 28, and 29	Number of Respondents (Unweighted)	Number of Comments (Unweighted)
1–2	31	51
3–4	44	150
5–6	26	141
7–8	14	103
9–11	6	62
Total	121	507

Grouping of Comments for Analysis

Survey respondents listed a wide variety of positive and negative effects of the program, as well as many different recommendations and suggestions. For purposes of analysis, we considered each separate effect or recommendation as a separate "comment." As shown in table 2, most survey respondents provided between 1 and 6 comments.

For purposes of presentation and analysis, we grouped comments into categories based on the nature of the comment. Table 3 summarizes the number of comments received in each category. The choice of categories and the grouping of comments into categories was a matter of judgment. It would have been possible to develop more specific or more general categories. Some categories, such as "increased safety," represent a specific effect or suggestion. Other categories, such as "administrative burden/problems," represent a wide variety of effects or suggestions.

The most frequently mentioned positive effects included "ability to choose when to fish," "increased safety," "better markets and prices," "uncrowded fishing grounds," and "less stress, more relaxed." The most frequently mentioned negative effects included "QS allocation too small/uneconomic," "administrative burden/problems," and "QS allocation unfair." The appendix provides examples of specific comments of survey respondents for these categories.

Note that in table 3 respondents are represented in proportion to the number of separate comments they made. For example, the experiences and opinions of a respondent who offered ten comments have a proportionally greater weight in table 3 than those of a respondent who offered only two comments. However, there did not appear to be any obvious difference between the number of comments offered by respondents with "favorable" or "unfavorable" attitudes towards the IFQ program.

The open-ended nature of the questions means that the number of responses in each category does not provide a scientific measure of the extent to which quota share holders experienced different effects or the extent to which they would support different suggestions. For example, the fact that only 12% of respondents (weighted) cited "uncrowded fishing grounds" as a positive effect of the IFQ program does not mean that the remaining 88% did not experience uncrowded fishing grounds. Similarly, the fact that only 7% (weighted) cited "reduced income" as a negative effect does not mean that only 7% of quota share holders experienced reduced income.

What the comments do represent are effects which quota share holders considered important enough to write down—what they considered the most positive or negative effects of the program.

Table 3
Summary of Comments Received About the IFQ Program

Nature of Comment	Number of Comments (Unweighted)	Percentage of Respondents*	
		Unweighted	Weighted
Positive Effects			
Ability to choose when to fish	46	38%	38%
Increased safety	44	36%	28%
Better markets and prices	29	24%	15%
Uncrowded fishing grounds	19	16%	12%
Less stress, more relaxed	14	12%	10%
Better for resource: less bycatch and waste	19	16%	8%
Stability and easier planning	13	11%	7%
Reduced gear loss	7	6%	5%
Lower costs	4	3%	4%
Better quality	14	12%	4%
Longer season	4	3%	3%
Better crew	5	4%	2%
Other positive effects	18	15%	18%
IFQ program has had no negative effects	21	17%	12%
Negative Effects			
QS allocation too small/uneconomic	32	26%	34%
Administrative burden/problems	18	15%	18%
QS allocation unfair	18	15%	11%
Reduced crew employment	10	8%	8%
Forced out of fishery	10	8%	8%
Reduced income	9	7%	7%
Cost of buying additional QS	6	5%	5%
Harvest limited by QS amount	6	5%	3%
Overzealous enforcement	5	4%	2%
Other negative effects	28	23%	19%
IFQ program has had no positive effects	23	19%	18%
Suggestions and Comments			
Simplify/change administration	7	6%	9%
Change block provisions	8	7%	5%
Change QS ownership limits	5	4%	4%
Change vessel size restrictions	3	2%	1%
Change observer regulations	4	3%	1%
Other suggestions/comments about the IFQ program	14	12%	11%
Other suggestions/comments	17	14%	9%
General positive comments about the IFQ program	10	8%	5%
General negative comments about the IFQ program	17	14%	13%

* Percentage of respondents who wrote comments or suggestions (121 unweighted, 4,144 weighted).

Quota Share Holders' Attitudes Towards the IFQ Program

The survey questionnaire was not designed for the purpose of assessing attitudes towards the IFQ program. However, it was clear from the comments that many respondents held either clearly negative or clearly positive attitudes towards the IFQ program. For example, 12% of respondents (weighted) answered question 27 about the

Table 4
Attitudes Towards IFQs Expressed by Survey Respondents

	Respondents' Attitudes Towards IFQs			
	Positive	Mixed	Negative	Total
Number of respondents (unweighted)	50	35	36	121
Percent respondents (unweighted)	41%	29%	30%	100%
Percent respondents (weighted)	29%	37%	34%	100%
Percent respondents, by total IFQ holdings*				
Less than 1,000 lbs.	18%	30%	52%	100%
1,000–4,999 lbs.	22%	43%	35%	100%
5,000–9,999 lbs.	22%	54%	25%	100%
10,000–19,999 lbs.	49%	39%	11%	100%
20,000–49,999 lbs.	78%	18%	4%	100%
More than 50,000 lbs.	85%	10%	5%	100%
Total	29%	37%	34%	100%

* Weighted responses.

"most positive effects of the IFQ program" using "phrases like "none," "there are none," "NONE!" and "zero, zip, nada, nothing, zilch." In complete contrast, a different 18% of respondents answered question 28 about "the most negative effects of the IFQ program" using terms like "none," "I can think of none," "zero—it's been good," and "none that I see."

The fact that many respondents held obviously positive or negative attitudes towards the IFQ program provided an opportunity to examine how these attitudes might be related to the size of total IFQ holdings. In order to do this, we coded attitudes as "positive" if the comments clearly indicated a generally positive attitude towards the IFQ program and its effects, and "negative" if the responses clearly indicated a generally negative attitude towards the IFQ program and its effects. In all other cases, we coded respondents' attitudes as "mixed."[8]

As shown in table 4 and figure 1, roughly equal percentages of survey respondents (weighted) held positive, mixed, and negative attitudes towards the IFQ program. Quota share holders' attitudes towards the IFQ program were clearly related to the size of their total IFQ holdings. The greater a quota share holder's IFQ holdings, the more likely he was to have a positive attitude towards the IFQ program. The smaller a quota share holder's IFQ holdings, the more likely he was to have a negative attitude towards the IFQ program.

Conclusions

The survey responses of halibut quota share holders to open-ended questions about the effects of the Alaska IFQ program provide an indication of fishermen's perceptions of the most important effects of the program. The positive effects mentioned by many fishermen suggest that they believe that the program is providing many of the benefits predicted by advocates of IFQ management, such as improved safety,

[8] Some respondents mentioned both positive and negative effects, while still conveying a strong overall positive or negative attitudes towards the program. We coded these respondents' attitudes as either "positive" or "negative." Others mentioned both positive and negative effects, or in some cases only positive or negative effects, but did not convey a strong overall attitude. We coded these respondents' attitudes as "mixed."

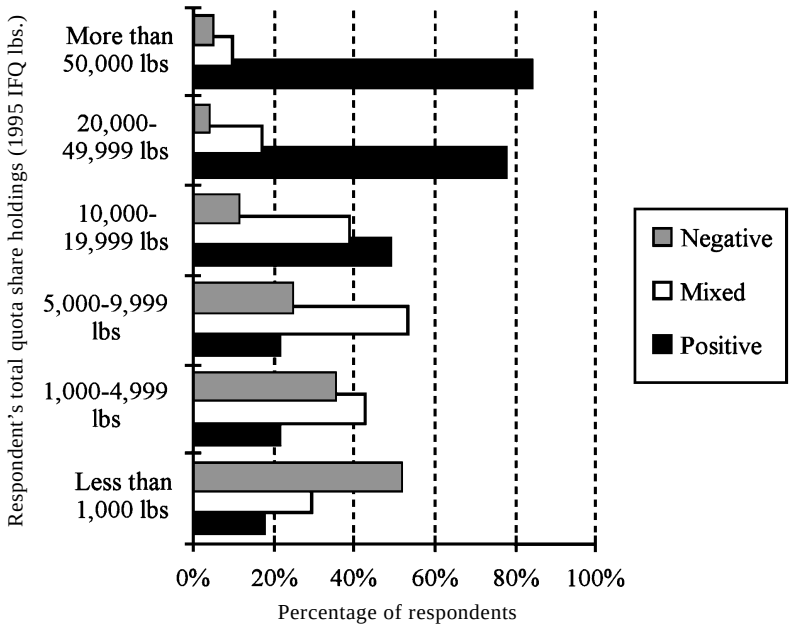

Figure 1. Survey Respondent's Attitudes Towards IFQs

better prices, and a more rational fishery. Other survey responses as well as other studies of initial effects of the program also support this conclusion.

However, the survey responses suggest that about one-third of all quota share holders had a clearly negative attitude towards IFQ management—about as many as had a clearly positive attitude. Attitudes towards the IFQ program were inversely correlated with the size of quota share holdings. Fishermen with large quota share holdings—which in the first year of the program reflected primarily initial allocations of quota share—tended to like the program; fishermen with small quota share holdings tended not to like the program. This result is consistent with the results of the survey of halibut captains prior to implementation of the IFQ program, in which those who expected their financial situation to improve were more likely to support IFQ management.

While not surprising, these results are instructive. They serve to remind us that management policies that may increase net benefits of fisheries do not necessarily make all fishermen—or even a majority of fishermen—better off. This can contribute to strikingly different perceptions of the same management policies among different fishermen.

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Appendix

Selected Examples of Survey Comments

Positive Effects of IFQ Program

Ability to Choose When to Fish

IFQs have brought a measure of stability to my small operation—I can plan my season now, and fish when it is best for myself and my crew.
Fish when the weather is good.
Can choose when to fish.
Pick and choose days.
Fishing when markets are good.
More flexibility.
Fish when weather is good.
Fish when I had the time to spare.
Somewhat relaxed fishing schedules, regulated mostly by what else is going on.
Flexibility.

Increased Safety

I will now be able to harvest during favorable, safe tides, and weather.
Increased safety.
I don't have to go out in bad weather.
Weather.

Safety. Not having to be out in inclement weather.
Being able to fish in good weather.
Being able to fish when weather is safe.
Safer for all.
Safety.
Safety. Being able to fish when weather is calm. Don't have to fish during storms.
Not having to fish when weather is bad.
Safer fishing! Freedom to pick your weather to fish in, as well as working it around other things. Less danger.

Better Markets and Prices

Fresh marketing.
Better market conditions.
Better quality product—better price.
Better care of fish—more money for the fish.
Higher ex-vessel price.
Better price—increased quality and steady supply make for a better price.
Getting a better price.
Price is usually higher. The halibut derbies flooded the market and quality was down. We can now compete with Canadians for fresh fish market throughout seasons.
We can fish when the market and processors actually want the fish.
Better price.
Seems to be more competitive among buyers for product—translates into higher price for product.

Uncrowded Fishing Grounds

Uncrowded fishing grounds.
No GEAR CONFLICTS. Less gear loss. Less expenses.
Less boats in area during season.
No other boats in the same area. No gear conflicts.
Fish where I want (not in a bunch of boats).
Fewer boats fishing at one time—gear tangles not a factor.
No crowding on grounds.
Not having crowded fishing conditions.
Not having to fight weather and congestion with other vessels on the grounds.
Less competition on grounds.
Gear conflicts are nil.
No crowds.

Less Stress, More Relaxed

Can take a slower pace.
Leisurely pace.
Not so STRESSFUL as before IFQ.
Reduced stress (safety factor, elimination of competitive factor).
Less stress about weather and time.
It saves hassle in fishing ground and time.
Less stress.
Much easier on my crew to have time to eat proper and sleep.
Less chaotic.
Also the fishery is more relaxed like it was in the '70s. My daughter and I can fish it ourselves and she gets more for college.
You can go fish—instead of a mad race!

Negative Effects of IFQ Program

QS Allocation too Small/Uneconomic

My quota share was too small to be practical and it will cost me several thousands of dollars to purchase a practical amount.
I cannot use my vessel to catch my IFQ due to IFQ's extremely small size.
Our quota was so small it's not worth fishing for, so now we don't halibut fish at all when before we could go out for a small catch when we needed some extra money.
Small quota!!
The shares allotted to me do not even make it worthwhile for me to go out fishing.
The small amount, additionally the moratorium on crab. I own the boat but received no share.
Too small of a poundage to survive in fishing.

QS Allocation Unfair

I crewed starting in 1974. Bought a boat in 1990 and ended up out of the fishery because of a small IFQ.
The skipper who leased my vessel received all of the quota shares. I received a few shares due to part ownership of a second vessel that made only one halibut trip.
It took away one-third of my total income. Now I have to rely on salmon to pay for my livelihood and salmon just doesn't do it alone. In 1994 I caught 15,000 lbs. of halibut.
Now my quota is 2,000 lbs. You figure it out!
Out of more than twenty-five years of halibut fishing, the comm. picked the seven very poorest years I fished. I therefore would end up receiving only about 12% of the quota I should have received.
In the 1970s I caught 0.5 million lbs. In the 1980s I tendered. In 1994 I fished two days caught $84,000. In 1995 IFQs limited us to 3,000 lbs.
Not enough IFQ. NMFS should have used qualifying years 1990–95 instead of 1985–90. All of the fishermen I know just got into the fishing business. With their halibut cut off, they don't have a future in fishing.
I get to catch about 60% of my average catch over the last twelve years. I never have caught less than 156,000 lbs. per year. I was issued 89,000. Call that taking a bad beating.

Administrative Burden/Problems

They refused to admit they made a mistake on my share type and turned down my request. I had to reappeal to the administrative office. Still no answer—except "Sorry, we won't get to it this YEAR!" This seems to be the typical "big government" BS—they don't care about the little guys.
Filling out paper work.
I have a small operation. Paperwork is tremendous!
Upon delivery must stay on boat until unloaded (very hard to understand).
Six-hour hailing time requirement before you can deliver fish.
This is a paperwork nightmare—with nine different card-permits needed.
I resent the law that confines crew to boat till catch is removed.
Three different steps and people just to sell the catch.
Philosophically oppose all the bureaucratic baloney.
Too many permits necessary to fish. Should consolidate requirements.
More red tape and BS.